

IN THE DRAWINGS

The attached sheet of drawings includes changes to Fig. 7. This sheet, which includes Fig. 7, replaces the original sheet including Fig. 7.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the above amendments and following remarks is respectfully requested.

Claims 1-3, 7-17 and 19-20 are pending in this application. By this amendment, Claims 1, 7-8, 12 and 17 are amended; Claims 4-6 and 18 are canceled; and Claims 19-20 are added. Support for the amendments to the claims can be found at least at the description on page 14, line 22 to page 17, line 15 of the present specification. It is respectfully submitted that no new matter is added by this amendment.

In the outstanding Office Action, Figure 7 was objected to; the specification was objected to; Claims 8 and 12 were objected to; Claims 1-7 and 9-11 were rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent 5,728,629 to Mizuno; Claim 8 was rejected under 35 U.S.C. §103(a) as unpatentable over Mizuno and further in view of 2006/0244027 to Basceri and U.S. Patent 6,667,537 to Koike; and Claims 12-16 were rejected under 35 U.S.C. §103(a) as unpatentable over Mizuno in view of Basceri and Koike.

With respect to the objection to the drawings, Figure 7 is designated as Prior Art by this amendment. Accordingly, withdrawal of the objection to Figure 7 is respectfully requested.

With respect to the objection to the specification, the specification is amended to correct the informality. Accordingly, withdrawal of the objection to the specification is respectfully requested.

With respect to the objection to Claims 8 and 12, Claims 8 and 12 are amended by the present amendment. Accordingly, withdrawal of the objection to Claims 8 and 12 is respectfully requested.

With respect to the rejection of the claims under 35 U.S.C. §102 and §103, those rejections are respectfully traversed. Specifically, the applied art does not teach or suggest

supplying a process gas into a process container to subject the first substrate to a semiconductor process, during which a by-product film containing at least 50% titanium nitride is formed on an inner surface of the process container, and subsequently supplying a gas for oxidizing the by-product film as a reforming gas into the process container, thereby subjecting the by-product film to a reformation process, which is set to reduce thermal reflectivity of the by-product film by transforming the by-product film into a film containing at least 50% titanium oxide, as recited in Claim 1 and similarly recited in Claim 12.

Mizuno discloses a technique for processing a tungsten by-product film by use of an adsorbate gas or an oxidizing gas to passivate the film. Further, Mizuno discloses, as modifications, in column 7, lines 45-48, that “the passivation based on adsorption (or oxidation) can be applied to the film of, for example, titanium nitride, titanium, tungsten silicide, titanium silicide, and copper.” It should be noted, however, in general, metals, such as titanium, are chemically more stable (more passive) in a form of nitride than in a form of oxide. Accordingly, if the teachings of Mizuno are applied to a titanium nitride by-product film, passivation based on adsorption may be usable, while passivation based on oxidation is illogical. Accordingly, Mizuno teaches-away from the features of the claimed invention. The remaining applied art does not make up for the deficiencies of Mizuno discussed above, nor does the Office Action particularly assert as such.

Again, Claims 1 and 12 recite that the reformation process is arranged to supply a gas for oxidizing the by-product film as a reforming gas, so as to transform the by-product film containing titanium nitride as a main component into a film containing titanium oxide as a main component, thereby reducing the thermal reflectivity of the by-product film. Where the thermal reflectivity of the by-product film is thus reduced, it is possible to improve the temperature controllability inside the process container, particularly, the temperature controllability by a heater in a structure of the hot wall type. For example, please see page

13, line 18. Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. §102 and §103 is respectfully requested.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

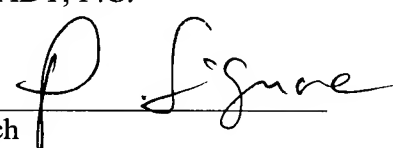
Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)
KMM/rac


Steven P. Weihrouch
Attorney of Record
Registration No. 32,829

Philippe J.C. Signore
Registration No. 43,922

Kevin M. McKinley
Registration No. 43,794

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